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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/632,467 | 08/01/2003 | Haruaki Watanabe | 16869K-088500US | 3818 |

20350 7590 07/28/2005

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EXAMINER

NGUYEN, HIEP T

ART UNIT PAPER NUMBER

2187

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,467

Applicant(s)

WATANABE ET AL.

Examiner

Hiep T. Nguyen

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/15/04 & 8/1/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is a response to the preliminary amendment filed November 12, 2004. Claims 1-15 are presented for examination.

Claim Objections

2. Claims 1-15 are objected to because of the following informalities:
 - a. As per claim 1, line 13, "each said pair" should be replaced with –said pair—for clarity.
 - b. As per claim 2, line 8, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - c. As per claim 3, line 6, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - d. As per claim 6:
 - i. Line 5, "each said pair" should be replaced with –each of said plurality of pairs--.
 - ii. Lines 17-18, "each said pair" should be replaced with –said pair—for clarity.
 - e. As per claim 7: line 10, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - f. As per claim 8: line 4, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - g. As per claim 11:
 - i. Line 5, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - ii. Line 15, "each said pair" should be replaced with –said pair—for clarity.
 - h. As per claim 12, line 7, "each said pair" should be replaced with –each of said plurality of pairs—for clarity.
 - i. As per claim 13: line 3, "each said pair" should be replaced with –each of said plurality of pairs--.

Art Unit: 2187

- j. Claims 4-5, 9-10, and 14-15 are objected as including the deficiencies in the independent claims 1, 6, and 11, correspondingly.

Allowable Subject Matter


3. Claims 1-15 would be allowable over the prior art of record if rewritten or amended to overcome the minor objections as set forth above. The claims would be allowed over the prior art of record because none of the prior art of record teaches or fairly suggests the claimed operations of performing the split process in which a backup between the primary volume and the secondary volume of the pair is performed in response to the split request and the synchronization of the pair is stopped, and storing, for each pair, the version information of the split process in a predetermined storage section, as recited in each of the independent claims.

Conclusion

4. This application is in condition for allowance except for the above formal matters:
5. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
6. A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- a. Boyd et al., US 2005/0010732, teaches backup system that keeps data in volume pairs.
 - b. Kaneda et al., US 2003/0204583, teaches split control for separating the primary volume and secondary volume and resynchronization control for pairing again the separate volume.
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T. Nguyen whose telephone number is (571) 272-4197. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

Art Unit: 2187

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.
10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hiep T Nguyen
Primary Examiner
Art Unit 2187

HTN